Chapter 3, Sections 3.9 – 3.11

List Of Changes From Revision 0 to Revision 1

Item	Location	Description of Change
1	General – Header of all pages	Changed "26A6642AK Rev. 00 " to "26A6642AK Rev. 01
2	Title Page	Changed "August 2005" to "January 2006"
3	Title Page	Deleted " (Conditional Release – pending closure of design verifications)"
4	Abbreviations and Acronyms	Deleted "ESBWR Economic Simplified Boiling Water Reactor"
5	Abbreviations and Acronyms	Added: "DQR Dynamic Qualification Report"
6	Abbreviations and Acronyms	Deleted "(non-seismic Category I)" from the definition of NS
7	Abbreviations and Acronyms	Changed the definition of SRSS to: "Square Root of the Sum of the Squares".
8	Abbreviations and Acronyms	Added: "TRAC Transient Reactor Analysis Code".
9	S3.9.1.1	Added to the end of the paragraph: "Table 3.9-9 shows the specific load combinations and acceptance criteria for Class 1 piping systems".
10	S3.9.3.1	Added to the end of the second paragraph: "Specific load combinations and acceptance criteria for Class 1 piping are shown in Table 3.9-9".
11	S3.9.3.3	Added to the end of the first paragraph: "Table 3.9-9 shows the specific load combinations and acceptance criteria for Class 1 piping that apply to this piping. For the main steam Class 1 piping, the thermal loads per Equation 12 of NB-3600 are less than 2.4 $S_{y,}$ and are more limiting than the dynamic loads that are required to be analyzed per Equation 13 of NB-3600".

12	S3.9.3.4, Paragraph "ASME Class 1, 2 and 3 Piping"	Added to the end of the paragraph: "Table 3.9-9 shows the specific load combinations and acceptance criteria for Class 1 piping systems. For the Class 1 piping that experience the most significant stresses during operating conditions, the thermal loads per Equation 12 of NB-3600 are less than 2.4 $S_{y,}$ and are more limiting than the dynamic loads that are required to be analyzed per Equation 13 of NB-3600. The piping considered in this category is the RWCU/SDC, feedwater, main steam, and isolation condenser steam piping within the containment. These were evaluated to be limiting based on differential thermal expansion, pipe size, transient thermal conditions and high energy line conditions".
13	S3.9.5.3 Events to be Evaluated	Changed wording in first paragraph from "four significant faulted events" to: "three significant load events". Deleted second paragraph. Changed wording in third paragraph from: "Steam Line Break Accident – a break in one main steamline between the reactor vessel nozzle and the main steam isolation valve" to: "RPV Line Break Accident – a break in any one line between the reactor vessel nozzle and the isolation valve". Deleted sixth paragraph.

14	S3.9.5.3 Pressure Differential During Rapid Depressurization	Changed wording in title and added sentence from: "Pressure Differential During Rapid Depressurization" to: "Reactor Internal Pressure Differences For reactor internal pressure differences, the events at normal, upset, emergency and faulted conditions are considered". Changed wording in first paragraph from: "…reactor vessel following the main steamline break between the vessel nozzle and main steamline isolation valve" to: "…reactor vessel following AOOs, infrequent events and accidents (e.g., LOCA)". Added to paragraph: "In order to determine the maximum pressure differences across the reactor internals, a two sigma statistical uncertainty study is performed to determine the upper bound pressure difference adders that are applied to the nominal pressure differences. Table 3.9-3 summarizes the maximum pressure differentials that result from the limiting events among the AOOs, infrequent events and accidents (e.g., LOCA)."
15	S3.9.5.3 Feedwater Line and Main Steamline Break	Deleted the Feedwater Line and Main Steamline Break section in its entirety.
16	S3.9.5.4 Response of Internals Due to Steam Line Break Accident	Deleted the Response of Internals Due to Steam Line Break Accident section in its entirety.
17	S3.9.6, last paragraph	Changed wording from: "…, which shall be provided by the applicant …." to: "…, which shall be provided by the COL holder …."

18	S3.9.6, last paragraph	Changed wording from: "The plan integrates the applicable test requirements for safety-related valves including those listed in the technical specifications (Chapter 16) and the containment isolation system (Subsection 6.2.4). For example, the periodic leak testing of the reactor coolant pressure isolation valves in Table 3.9-8 is performed in accordance with Technical Specification surveillance requirement(s)" to: "The plan integrates the applicable test requirements for safety-related valves listed in Table 3.9-8."
19	S3.9.6.1, Check Valves	Changed wording from: "A program shall be developed by the applicant …." to: A program shall be developed by the COL holder …."
20	S3.9.6.1, Motor-Operated Valves	Changed wording from: "The applicant referencing the ESBWR design shall provide …." to: The COL holder referencing the ESBWR design shall perform …."
21	S3.9.6.1, Motor-Operated Valves, last paragraph	Changed wording from: "A program shall be developed by the applicant …." to: A program shall be developed by the COL holder …."
22	S3.9.6.1 Isolation Valves Leak Tests (2)	Changed wording from: "biding" to: "binding".
23	S3.9.7	Changed wording from: "COL applicant ..." to: "COL holder …"
24	S3.9.8	Changed wording from: "COL applicant ..." to: "COL holder …"
25	S3.9.9.1 (4 Places)	Changed wording from: "… COL applicant" to: "… COL holder"
26	S3.9.9.2	Changed wording from: "COL applicants ..." to: "COL holders …"

27	S3.9.9.3	Changed wording from: “COL applicants ...” to: “COL holders …”
28	S3.9.9.4	Changed wording from: “COL applicants ...” to: “COL holders …”
29	S3.9.10, Reference 3.9-1	Added “NEDO-21354, September 1976 (Non-proprietary)”
30	S3.9.10, Reference 3.9-2	Added “NEDO-21175-3-A, October 1984 (Non-proprietary)”
31	Table 3.9-2, Note (13)	Deleted words “(Reference 3.9-7)”.
32	Table 3.9-3, General Changes	Replaced all pressure difference values in the table and replaced Note (1).
33	Table 3.9-8 P54 High Pressure Nitrogen Supply System Valves	Changed note (2 places) From: “(h1)” to: “(h)”.
34	Table 3.9-9, General Change	Added Table 3.9-9 in its entirety.
35	S3.10 (2)	Change item numbering From: d, to: b From: e, to: c
36	S3.10.2.1 Test Methods third paragraph	Change item numbering From: (5), to: (1) From: (6), to: (2) From: (7), to: (3) From: (8), to: (4)
37	S3.10.4, Equipment Qualification Records	Changed paragraph to read: “COL holders shall maintain the equipment qualification records including the reports (see Subsections 3.10.2.1 and 3.10.2.2) in a permanent file readily available for audit.”

38	S3.10.4, Dynamic Qualification Report	Changed first sentence to read: "COL holders shall prepare a Dynamic Qualification Report (DQR) identifying all Seismic Category I electrical equipment and their supports."
39	S3.11.2.1, sixth paragraph	Change word From: "demonstrate", to: "demonstrated"
40	S3.11.2.2, fifth paragraph	Change word From: "environmental", to: "environment"
41	S3.11.4, Radiation Environment, last paragraph	Changed wording from: "… verified by the COL applicant ..." to: "… verified by the COL holder"
42	S3.11.5, Environmental Qualification Document (EQD)	Changed first sentence to read: "COL holders shall prepare the EQD summarizing the qualification results for all equipment identified in Subsection 3.11.1."
43	S3.11.5, Environmental Qualification Records	Changed first sentence to read: "COL holders shall record and maintain the results of the qualification tests in an auditable file in accordance with requirements of 10 CFR 50.49(j)."